

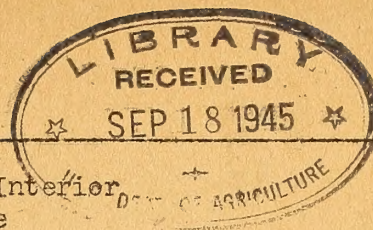
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THE STATUS OF MIGRATORY GAME BIRDS: 1942-43

Prepared in the Section of Migratory Bird Investigations  
Division of Wildlife Research

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INTRODUCTION

Determination of the current status of the different species of migratory game birds is, at best, a complicated assignment. Nevertheless, despite added difficulties resulting from the war, the work has been continued with the objectives of giving sound management to a natural resource of unquestioned value, and of preserving it for the continued use of the American people.

For reasons of economy, the present account, beginning with the spring migration of 1942 and ending with the inventory of January, 1943, is very brief. It represents no more than summary of many detailed reports prepared by co-operating naturalists and by officers of the Fish and Wildlife Service and of the National Parks Bureau of Canada. It will serve to maintain the continuity of the series dating from 1936.



## PART 1: MIGRATORY WATERFOWL

### Spring Migration

To the average student of birds, the spring migration is always the most interesting. The movement of waterfowl at that season does not, however, usually compare with the spectacular flight of the fall. It was accordingly gratifying to receive 387 reports of the comparative status of the ducks and geese as they traveled north to their breeding grounds in the spring of 1942.

The inventory, taken in January 1942, had shown a continental population of ducks and geese estimated to have been slightly above 100,000,000, an increase from about 70,000,000 in 1941. Reports on the spring migration confirmed this improvement, 159 observers indicating an increase. There were, however, 95 observers who reported no change, while 59 others found a decrease.

In the analysis by species, it was particularly pleasing to note the continued gains that were being made by such species as the Gadwall and Redhead. The status of the Wood Duck showed very little change but that of the Canvas-back fell off a few points, entirely in the "no change" classification. Geese, generally, showed little change, a one point gain in the status of the Cackling Goose probably having no special significance.

### Breeding-ground Surveys

#### Canada

Harold S. Peters of the Atlantic Flyway, resumed his operations in the Provinces of Nova Scotia, New Brunswick, and Prince Edward Island; in the latter part of the season, he made brief examinations of a few areas in Ontario and Quebec. High water in parts of the Maritime Provinces probably caused the loss of some nests but this was not believed to be serious. Because of commitments for other work in Newfoundland, inspections were not as detailed as in past years but the evidence indicated satisfactory conditions with reasonable prospects for a good crop of birds.

#### Prairie Provinces

During the summer of 1942, waterfowl habitat in the Provinces of Manitoba, Saskatchewan, and Alberta, was examined by the biologist of the Mississippi Flyway, Robert H. Smith, who succeeded to this position following the transfer of Charles E. Gillham to the Alaska Game Commission. In addition, through the courtesy of J. Smart, Controller, National Parks Bureau, Ottawa, Ontario, the Service received copies of the reports covering the investigations of J. Dewey Soper, Chief Federal Migratory Bird Officer for the Prairie Provinces.

While these two investigators worked independently they met in the field at Edmonton, Alberta, and so had an opportunity to compare notes. Between them they obtained a remarkably fine coverage of the waterfowl areas of the Prairie Provinces.



In Manitoba, Mr. Smith worked in the Netley Marshes at the south end of Lake Winnipeg, the Delta Marshes at the south end of Lake Manitoba, Portage Creek, Big Grass Marsh, the pot-holes and sloughs northwest of Minnedosa, the area south of Rock Lake, The Pas district with its many lakes, creeks, and other waterways, and the Saskatchewan River to its delta. In Saskatchewan he visited lakes and sloughs near Moose Jaw, Buffalo Pond Lake, the Qu'Appelle Valley and Arm River, Last Mountain Lake, Stalwart Marsh, Little Manitou Lake, Waterhen Lake, and many other lakes, ponds and marshes of lesser importance. Operations in Alberta included work at Many Island, Cassils, Stafford, Corvoki, and Newell Lakes. Mr. Soper gave particular attention to this Province and in it their combined reports show that detailed examinations were made of between 25 and 30 lakes.

At Edmonton, Mr. Smith had made arrangements to proceed by air to Fort Chipewyan on Lake Athabasca, but for several days the smoke from muskeg fires to the north was so dense that all flights were cancelled.

In September Mr. Soper again visited The Pas district in Manitoba for a reexamination of many of the areas visited earlier in the season by Mr. Smith.

Waterfowl conditions in the Prairie Provinces during the summer of 1942 were somewhat confusing. In general there was much more water. For example, in Manitoba water conditions were the best in years with almost continuous rains during June and July. In this Province ducks had definitely increased. In his report, Mr. Smith listed larger numbers of the Pintail, Blue-winged Teal, Shoveller, Baldpate, Redhead, Canvasback, and Ruddy Duck. Nevertheless, he could find no change in the numerical status of the Gadwall, Green-winged Teal, Lesser Scaup, Goldeneye, and White-winged Scoter while he found evidence of a decrease in the number of Mallards.

In Saskatchewan water conditions throughout the Province had improved since 1941, but in most cases it came during June and July, filling the sloughs and pot-holes after the spring migration. An exception was noted in the southeast corner where heavy spring snows added to the residue from 1941 to present nesting conditions that were fairly satisfactory when the birds arrived in the spring. Consequently, ducks were abundant all through the south, but north of Moose Jaw and Regina, they were no more abundant than in 1941 and some local observers claimed a decrease. As compared with Manitoba, Mr. Smith reported that the scarcity of Redheads was striking.

The situation in Alberta was similar, late water supplies doing little to attract migrating ducks and geese in search of a suitable breeding environment. As a result of his study Mr. Smith concluded that Alberta should be listed in the "no change" classification. Mr. Soper indicated agreement by reporting the waterfowl situation in this province as "indifferent."

The combined reports of these two officers cover 279 typewritten pages, with a wealth of detail. They may be summarized by the following concluding statement by Mr. Smith:



"Taking all factors into consideration, I believe there is an increase of waterfowl in Canada (the Prairie Provinces) this year, and that the increase may be substantial. My reasons for this statement are as follows: Manitoba has produced the most ducks this year since the low ebb in the early nineteen-thirties, and while large areas in Saskatchewan and Alberta did not attract nesting birds due to lack of water early in the spring, the birds surely went on through and will have produced broods elsewhere, since we know that more birds came north this spring. Moreover there will be no loss this year from drouth and while there has been some loss due to nest flooding, late freezes and predation, these losses will not approach the annual drouth loss previously experienced."

#### British Columbia

Again, through the courtesy of Canadian officials, the Service was provided with a copy of the report of J. A. Munro, Chief Federal Migratory Bird Officer for British Columbia. Most of Mr. Munro's work was in the Cariboo region in the northern part of the Province. Operations were conducted from a base at 122 Mile, Lac la Hache.

The nesting season was somewhat later than usual as Baldpates were still associated in pairs in the latter part of June and smaller numbers of post-breeding Mallards and Pintails were observed during the early part of that month. Broods, particularly those of the Barrow's Goldeneye and the Bufflehead, were somewhat smaller than usual--a possible result of frequent heavy rains and hail-storms that occurred about hatching time. No marked change in the numerical status of either pond or diving ducks was observed. Some minor changes took place on some of the lakes examined but in general, they balanced each other. The number of nesting Canvasbacks was definitely larger while some reduction was recorded for the Green-winged Teal, Blue-winged Teal, and Shoveller. A small population of Cinnamon Teal had at least doubled in size.

#### Alaska

The biologist of the Mississippi Flyway, Charles E. Gillham, had been transferred to the Alaska Game Commission but since plans had been completed for his work on the waterfowl of the Yukon delta region, this assignment was not changed.

He established summer headquarters at Chevak, in the Hooper Bay area on April 17, going in with a plane piloted by Alaska Game Agent Gren Collins. At this time the area was covered with snow and ice and no waterfowl had arrived. Because of his early arrival he witnessed the entire spring migration and his report contains much valuable data on that subject.

The conclusion was reached that the Territory should produce an abundant crop of waterfowl for the 1942 season. Climatic conditions were normal and, due to shortage of ammunition, the kill by Eskimos was very light. Good clutches of eggs were laid and broods of young were of normal size. The most



serious reducing factor appeared to be unusually heavy predation by jaegers and Glaucous Gulls. Mr. Gillham reported that "Pintails, Mallards, Greater Scaups, and Shovellers were observed as being on the increase.....Baldpates and Green-winged Teal seemed to be holding their own.....White-fronted Geese and Cackling Geese seemed to show a good increase, although Emperor Geese seemed less abundant than a year ago."

### Newfoundland

During the month of June, 1942, the biologist of the Atlantic Flyway, Harold S. Peters, assisted by biologist Thomas D. Burleigh, and by agents and field employees of the Department of Natural Resources of Newfoundland made a critical examination of many areas in that crown colony. Work on migratory waterfowl was conducted in conjunction with a more general survey that has as its objective, a detailed study of the birds of Newfoundland.

The migratory waterfowl that nest on the island include the Canada Goose, Black Duck, Green-winged Teal, probably the Ring-necked Duck, and the American Goldeneye. Nests and eggs or broods of downy young of several of these were seen repeatedly and it appears that this area makes a contribution of some size to the ducks and geese of the Atlantic Flyway, particularly to that part that may be known as the northeastern flight. It was reported, however, that the Canada Goose does not now nest in its former numbers although in the vicinity of Terra Nova the birds were receiving some aid from a local citizen who for 17 years has been raising them in semi-captivity. Wild birds nest freely with those that have been pinioned.

General nesting conditions continue to be good. The Goldeneye seems to be the most abundant duck and the area is apparently at the edge of the normal nesting range of the Black Duck.

### Mexico

Heretofore all work on migratory waterfowl in Mexico has been conducted during the winter months. It was known that certain species, such as the Muscovy and the Mexican Black Duck, probably were resident but reports also have been received indicating that some of the more northern species also might nest in moderate numbers. The biologist of the Pacific Flyway, Luther J. Goldman, accordingly devoted the period from June 18 to October 4, 1942, to a survey of areas in the States of Chihuahua and Durango. Operations were originally planned to cover as much as possible of the central Mexican tableland, but conditions imposed by the war made it necessary to restrict the work to the region named.

The most important waterfowl breeding and wintering grounds in Chihuahua include Lakes Bustillos, Mexicanos, La Babicora, Santa Maria, and Ojo de Agua, and the reservoirs of Boquilla, Colina, and San Marcos.



In the State of Durango the most important water units are Lakes Santia-guillo and Conatlan in the Guadiana Valley, the Laguna de Sanjuanera near Madera, and some river channels, notably that of the Rio Nazas. El Palmito Reservoir, with a superficial area of 45 square miles, and now under construction on the headwaters of the Rio Nazas, will add materially to the water storage resources of Durango and western Coahuila. In addition, there are numerous smaller reservoirs, lagoons, and river channels which, with flooded fields and overflows on waste lands from the irrigation canal systems, and temporary rain-water lakes and ponds, add materially to the aggregate of suitable habitat. They are not all good waterfowl nesting grounds as many lack the stability of water levels necessary for the production of extensive marsh areas with protective cover or adequate feeding grounds.

During the early part of the season Mexican Black Ducks and Cinnamon Teals were common in small flocks and in pairs. Little nesting activity was detected and it was not until early July that the first female Black Duck was flushed from her nest at Lake Bustillos on July 24. Nests of Cinnamon Teals and Coots, with only partially filled complements of eggs, were found as late as September 19 at La Colina Reservoir.

During July some Baldpates, Shovellers, and Pintails were seen and while neither nests nor downy young were observed, there is a possibility that the latter two species may breed in limited numbers. Mere presence of a species during the breeding season cannot be accepted, however, as evidence of nesting. It must be concluded that aside from the regular resident ducks, there is not a large production of waterfowl in Mexico.

By early September northern migrants were arriving in considerable numbers and by the last of the month were present in force. Sandhill cranes were first observed on September 3 and by the latter part of the month even Lesser Snow Geese had reached the Ojo de Agua Lagoon. In addition to the species that had been observed earlier in the season, Gadwalls, Green-winged Teals, Blue-winged Teals, Redheads, Ring-necked Ducks, and White-fronted Geese came in September.

#### Nesting Conditions in the United States

Most of the waterfowl nesting refuges had more water and were generally in better condition than ever before. Some of these had an abundance of water for the first time since their establishment. The spring run-off not only filled the water areas of the refuges, but also countless thousands of pot-holes and sloughs, some of which had been dry for several years. This again resulted in a wide dispersal of the ducks and other water birds and, while it greatly increased the magnitude of the job of appraising results of the breeding season, it also served to prevent some of the heavy losses from disease that in the past have occurred when ducks were heavily concentrated in infected areas. There were, however, a few locally serious outbreaks of botulism. Also a few areas seemed to have a reduced number of birds. For example, a Service biologist with several years experience on the Crescent Lake National Wildlife Refuge in Nebraska, reported that in 1942 it produced only about one-third as many ducks as in 1938.



Despite cases of this kind, the consensus of all Service personnel operating in waterfowl breeding areas in the United States was that while not spectacular, nevertheless the 1942 season was entirely satisfactory and that a good crop of birds was produced.

### Fall Migration

Reports on the waterfowl migration of 1942 were received from 305 observers who made comparisons with that of the fall of 1941.

Gross analysis of these data on the status of waterfowl in general showed that there were 157 reports of increase to 44 of decrease, while 73 indicated no change. In a summation of the categorical reports, species by species, the increase classification stands at 1,794, the decrease at 783, and the no change at 2,520. In other words, while most observers found that there was a substantial increase in the number of waterfowl as a group, it was also true that a majority of these same observers, in their reports on individual species, found little change from the status observed in 1941. This seemingly anomalous situation is probably the result of two factors: (1) the increasing difficulty of making accurate seasonal comparisons with the constantly increasing populations, and (2) the fact that some of the commoner species are increasing more rapidly than some of those that only a few years ago were considered to be in a critical condition. For example in 1941, the increase percentage figure for the Mallard was 43, while in 1942 it was 58, whereas for the Redhead in 1941 it was 30, a figure that in 1942 had risen only to 33.

The status of the continental population of ducks and geese, as revealed by these reports, could be considered gratifying. Some species, like the White-fronted, Cackling, and Ross's Geese showed little change from their status in 1941, while for the first time since these reports were started nearly ten years ago, not one decrease report was received for the Atlantic Brant. Even the Wood Duck, legally included (1 bird) in the game bag for the first time in nearly 25 years, seemed to be easily holding its own.

While the percentage figures for all four flyways are remarkably close, it nevertheless appeared that the most significant gains had been made, first, in the Central Flyway and second, the Pacific Flyway.

This general account based upon national coverage, was supplemented by special reports for regions and flyways. For example biologist Smith transmitted an excellent statement of the movement in the Mississippi Flyway in which he traced the migration from Montana, the Dakotas, Minnesota, Wisconsin, and Michigan, south to Mississippi, Louisiana, and Texas. Strangely enough, and perhaps indicative of the year-to-year variation that can exist in any flyway, the percent of increase recorded in the valley of the Illinois River was only 2.6, while in 1941 it was 39.0, and in 1940 it was 10.4. Mr. Smith's report alone could furnish material to fill all the pages used for this summary.



### Wintering Ground Survey

A reduction in appropriations curtailed the extent of operations on the wintering grounds and the work was confined entirely to the United States.

Peters devoted his attention to the concentrations on the Atlantic coast particularly south of Chesapeake Bay; Smith worked in the lower Mississippi Valley, and on the Gulf coast from Mobile Bay west to eastern Texas where he connected with Saunders on the coast of that State; and Goldman devoted his attention to the wintering grounds of the San Joaquin and Imperial Valleys of California.

Concentrations were heavy in nearly every important area although in some sections, notably in southern Louisiana, heavy invasions early in the season, were followed by unexplained departures. Drought conditions in the rice growing area probably were a contributing factor.

### January Inventory

As was the case in 1942, shortages of personnel and facilities had their effects upon this operation. Aviation from the Navy and Coast Guard was made available in sufficient quantity to assure almost normal coastal coverage, but for some important interior areas it was necessary to depend entirely upon surface observations. In one or two cases there was also a complete failure of State aid. Loss of trained personnel from Service ranks added greatly to the responsibility of those who were left but with the excellent cooperation of both Federal and most State agencies a reasonably satisfactory job was completed.

The failure to obtain coverage of some vital areas that had heretofore figured in each inventory, made necessary some changes in the methods of analysis. Nevertheless, after a careful study of all regional reports, and with the aid of supplementary and explanatory information furnished by agents in certain critical areas, a continental estimate of 119,600,000 waterfowl was made. While admitting that, because of unusual circumstances, there is possibility of a greater margin of error than has existed in previous inventory estimates, it is nevertheless believed that the final figure for the 1943 inventory is sufficiently accurate for practical purposes, namely, those of sound administration.

For the sake of those interested in knowing the relative abundance of our ducks and geese, the Mallard is, of course, number one on the list. It is followed in order by the Pintail, Baldpate, Scaups (both species considered together), Black Duck, Gadwall, Green-winged Teal, Canvasback, Shoveller, Red-head, Wood Duck, Ring-necked Duck, Bufflehead, and Ruddy Duck. Among the geese the Canada Goose with its subspecies, places first, followed in order by the Snow Goose (both species considered together), Blue Goose, White-fronted Goose, Brant (both species), Cackling Goose, and Ross's Goose.



## PART 2: OTHER MIGRATORY GAME BIRDS

Woodcock

Evidence now available indicates that maintenance of this fine game bird in adequate numbers may be difficult until methods of managing it are better known.

Checks on the spring flight of 1942 resulted in 29 reports of increase, 67 of no change, and 30 of decrease. These figures could hardly be considered as indicating a favorable situation and the same checks made during the southward flight, produced 23 reports of increase, 58 of no change, and 30 of decrease. Obviously, the intervening breeding season had resulted in little if any improvement and the natural question is - "Why?" If the answer were known important steps probably could be taken for improvement in woodcock conservation.

Biologist Smith in his report on the fall migration in the Mississippi Flyway cited statements made to him that during October there had been a large number of Woodcock at the mouth of the Illinois River. According to some reports an increase in their numbers also was noted in Louisiana.

On the permanent census area in eastern Maine, personnel of the Maine Cooperative Wildlife Research Unit made their sixth consecutive census, resulting in figures that showed an increase of 24.2 percent. Forty one occupied singing grounds were found in 1942 as against 33 in 1941.

Biologist Peters devoted much attention to this bird in the three Maritime Provinces. He studied six notably good Woodcock areas in New Brunswick, two in Nova Scotia, and four in Prince Edward Island. All of these had been examined by him in 1941 when he tabulated 152 singing males. In 1942 the count was 184 indicating a gratifying increase that checked well with the reports from the breeding grounds in Maine.

New York, on the other hand recorded a conspicuous decrease as did also Pennsylvania. Dr. Logan J. Bennett of the Pennsylvania Cooperative Wildlife Research Unit, reporting on an area near State College, where this species has been studied each season since 1939, stated that the number of singing males dropped from 45 in that year to 10 in 1942. In 1940 the number was 27, and in 1941 it was 20, a progressive recession that could be considered only as disquieting.

Wilson's Snipe

No additional reasons have been discovered for the decline of the Wilson's Snipe. This appears to be continuing despite the complete protection that is now given this species by the Federal law.



The national report on the 1942 spring migration contained 38 records of increase, 119 of no change, and 55 of decrease, obviously reflecting an unsatisfactory condition in its numerical status. The fall check indicated a slight improvement with 37 reports of increase, 90 of no change, and 49 of decrease.

J. Dewey Soper in one of his 1942 reports on the status of migratory game birds in the Prairie Provinces stated "I believe they should be accorded universal protection for a number of years. Other waders are doing well, while this one species is subjected year after year to a drain on its numbers at the hands of hunters. In my opinion, this cannot be continued indefinitely." With our present knowledge, protection is the chief management step that can be taken but it is believed that the complete solution to the problem involves more than the closing of the hunting season.

Mr. Smith in his 1942 fall migration report stated that while he saw very few on the upper Mississippi River, they were quite abundant on the Louisiana coast but not, he adds, as abundant as they had been four years previously, when he was last in that district. The only reports of real abundance came from Louisiana and Florida.

#### Rails and Coots

It is not necessary at this time to go into details regarding these birds for the reason that they are of interest to relatively few sportsmen.

Both the spring and fall national reports for 1942 showed that the Coot continued to increase while little if any change was recorded for the different species of rails.

#### Mourning Dove

The 1942 spring report on the status of all migratory game birds indicated little change in that of the Mourning Dove. The breeding season for that year was, however, fairly satisfactory over a large part of the range so that when the fall report was compiled, for the first time in two years, the figures obtained indicated that a change for the better was in progress. While it was obvious that more than a single nesting season would be required to effect full recovery, it was nevertheless highly gratifying to note that it would not be necessary to take the drastic protective action that was seriously contemplated in the spring of 1942.

#### White-winged Dove

Because of the urgency of the war fisheries program, the location of his headquarters, and his special qualifications, it became necessary to assign Dr. George B. Saunders, Biologist of the Central Flyway, to part time duty with



the Office of the Coordinator of Fisheries, a war time unit of the Fish and Wildlife Service. This action, and the loss to the armed services of State personnel in both Arizona and Texas, has delayed completion of the White-winged Dove report. For a time it seemed that Dr. Saunders himself might be inducted into the Army but at the request of Assistant Secretary Chapman, Chairman of the Interior Department Committee on Deferment, his local board has granted deferment.

In Arizona, the study has been completed and biologist Johnson A. Neff has returned to his duties with the research laboratory at Denver, Colorado.

Dr. Saunders has continued study of the eastern race, both in the Rio Grande Valley of Texas and in eastern Mexico.

L. J. Goldman of the Pacific Flyway in the course of his work in Mexico in the summer of 1942, reported that White-winged Doves were a common nesting species in the Conchos River Valley and he also noted them in the plazas of Santa Rosalia and La Boquilla and along the tree-lined avenues of Chihuahua City.

#### Band-tailed Pigeon

Management of the Band-tailed Pigeon of the western States is by no means satisfactory. Unfortunately, these birds are sometimes guilty of serious local depredations on cherries and other fruit crops so that any great increase in their numbers may not be desirable.

Biologist Arthur S. Einarsen of the Oregon Cooperative Wildlife Research Unit submitted an excellent report on this species in which he summarized its history back to 1918. Only one egg is laid to a clutch, but like the Mourning Dove, the breeding season extends well into August. Shooting, as now practiced, does not appear to follow recognized lines of sportsmanship as the crippling loss is very heavy. Einarsen estimates that it may be as much as 60 percent and that in some areas hunters may fire from 100 to 250 shells per day, chiefly at birds well beyond effective killing range. Thus it is fortunate that only a relatively few individuals hunt this bird. Its numbers appear to be slowly increasing.

While it always has been a resident of Colorado in small numbers, a report from the Regional Forest Service Office in Denver, indicates that it is increasing in that State. A census of birds actually seen by forest rangers in 1942, yielded a total of 3,032.



